

DETERMINANTS OF DIVIDEND POLICY: THE CASE OF VIETNAM

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ABSTRACT

There were several researchers who investigated dividend policy in developed countries like the USA (Chang and Rhee, 1990), the UK (Al-Najjar and Hussainey, 2009), Argentina (Bebczuk, 2005), Poland (Kowalewski et al., 2008) or Japan (Ho, 2003) and some authors studying this in developing countries such as Tunisia (Naceur et al., 2006) or Pakistan (Mehar, 2002) with widely different results but no researches have been done in Viet Nam about the determinants of its dividend policy. Therefore the purpose of this paper is to examine the determinants of dividend policy in Viet Nam, an emerging stock market that was officially established in July, 2000. The paper identifies whether firms' characteristics and corporate governance affect their dividend payments. Firms' characteristics include profitability, firm size, debt level, liquidity, asset structure, industry type, growth opportunities plus business risk; corporate governance comprises management ownership, ownership concentration, board of directors along with audit quality. The author relies on a sample of 116 companies listed on the Hochiminh Stock Exchange (HOSE) and Hanoi Stock Exchange (HNX) for the year of 2009 in Viet Nam. Being similar to studies in the US, the UK, Argentina, Tunisia and Poland, it is found that, in Vietnam, profitability influences positively and business risk impacts negatively on dividend disbursement. Moreover, there are relationships between industry type as well as audit quality and dividend payments. This research contributes to Vietnamese literature in asserting that profitability is the most important determinant of dividend policy in Vietnam, so external investors can rely on expectations about the profitability of a firm in the future to consider whether they should buy, hold or sell its shares.

Keywords: Dividend policy, Viet Nam, characteristic, corporate governance

INTRODUCTION

Dividend payment is the distribution of net profit after tax to a company's shareholders after keeping a specific amount of earnings to reinvest in the business. Dividend policy is a significant concern of both financial managers in shareholding firms and outside investors. Specially, in Viet Nam, securities are still fresh to investors and people alike; and this can cause confusion when choosing whether to make buy, hold or sell decisions about stocks. Thus, findings which show how Vietnamese firms' features and corporate governance affect dividend policy will be of real importance to external investors interested in stock market investment in Vietnam.

The role and the application of dividend policy are supported by different theories such as signaling theory, trade-off theory, agency theory, transaction cost theory and pecking order theory. Until now, several researchers have continued to prove and developed these theories in order to determine the factors which influence the dividend policy of a joint-stock enterprise. Generally, there are two main groups of factors comprising firm's characteristics and corporate governance. Firm's characteristics include several factors such as profitability (Lintner, 1956; Fama and French, 2002), firm size (Farinha, 2003; Bebczuk, 2005), debt level (Chang and Rhee, 1990; Belden et al., 2005), liquidity (Ho, 2003; Myers and Bacon, 2004), asset structure (Myers, 1984; Koch and Shenoy, 1999), industry type (Baker and Powell, 2000; Naceur et al., 2006), growth opportunities (Kowalewski et al., 2008; Al-Najjar and Hussainey, 2009) and business risk (Aivazain et al., 2003; Li and Zhao, 2008). Corporate governance consists of management ownership (Jensen et al., 1992; Short et al., 2002), ownership concentration (Khan, 2006), board of directors (Bathala and Rao, 1995) and audit quality (Deshmukh, 2005). It is found that factors impacting dividend policy are still the subject of debate.

The above fact provides the reason for this research's examination of the determinants of dividend policy in Viet Nam, a developing country with the emerging stock market in Asia.

LITERATURE REVIEW AND RESEARCH HYPOTHESES

DIVIDEND POLICY AND FIRM CHARACTERISTICS

a. Dividend policy and profitability

Lintner (1956) found that the most important factor influencing dividend decisions is the association between present earnings and the dividend rate. A few years later, Jensen et al. (1992) also asserted a positive link between dividends and current profitability that can be measured by the ratio of operating income to total assets. Fama and French (2002) suggested that this relationship happens in order to mitigate the agency problem as enterprises with higher profits have more free cash flows; additionally, more profitable firms can still pay greater dividends without financing investments with risky debt and equity in accordance with the pecking order model.

Most authors proved a positive association between profitability and the payment of dividends in different countries such as America, Argentina or Tunisia. Therefore, this same directional relationship will be checked for Vietnam to consider whether dividend policies in Vietnamese companies are also affected positively by their profitability like other countries or not. From that the first hypothesis in this study is that

H1: There is a positive association between profitability and the dividend expenses of firms on the HOSE and HNX.

b. Dividend policy and firm size

Myers and Majluf (1984) found that the asymmetric information situation between managers and external investors leads to underinvestment problems. Based on that, Deshmukh (2003) clarified this with respect to the change in the dividend. When other things are constant, the higher the level of asymmetric information that can be shown due to the smaller firm size, the higher probability of underinvestment; so the lower the dividends paid to stockholders. However, Naceur et al.'s (2006) results, based on 48 listed companies on the Tunisian Stock Exchange between 1996 and 2002, showed that smaller corporations want to disburse more dividends as they can catch the attention of potential investors to lessen their inherent risks.

Thus, there seems to be a relationship between firm size and dividend yield but there are still arguments about the direction of this association. In case of Vietnam, this study tests whether firm size influences dividend yield of privatized companies or not. The following hypothesis is set:

H2: There is an association between firm size and the dividend payments of firms on the HOSE and HNX.

c. Dividend policy and debt level

Debt level measures the level at which a corporation relies on external funds to finance investments (Al-Najjar and Hussainey, 2009). A correlation between debt level and dividend disbursement is expected from the trade-off theory and pecking order theory. Several authors examined this relationship but until now there are competing ideas. Chang and Rhee (1990) supported a positive association because they argued that higher financial leverage exists in relation to lower shareholder tax rates, so it makes the firm willing to pay higher dividends. Belden et al. (2005) also found, when they test 524 large American firms in the list of Forbes 500 from 1998 to 2000, that debts are still used in companies applying dividend policy to control agency problems. On the other hand, the view of Jensen et al. (1992) was different in that they believed financing from equity is more attractive to firms having high dividend ratios than from debt, so low ratios of long-term debt to the book value of total assets often happen in these companies. Bebczuk (2005) and Kowalewski et al. (2008) agreed with the idea of Jensen et al. (1992) in that they thought that firms with high leverage seem not to want to reimburse high dividends and get more loans with the purpose of limiting default risk. Neutrally, Al-Najjar and Hussainey (2009) suggested there is no relation between these two factors because of the statistically insignificant results of hypothesis tests. Naceur et al.'s (2006) results showed that the total debt to the equity's market value does not affect the dividend yield.

Because there is no consensus about the relationship between dividends and debt level, this study will test whether this association exists in the Vietnamese joint-stock enterprises or not. Hence, another hypothesis related to debt level is suggested:

H3: There is a link between dividend disbursement and the debt level of enterprises on the HOSE and HNX.

d. Dividend policy and liquidity

Liquidity is the extent at which a firm can pay short-term liabilities based on its liquid assets (Atrill and McLaney, 2002). Ho (2003) found that the more liquid firms in Japan have higher dividend payouts. Mehar (2002), however, suggested there is an inverse relationship between liquidity position and dividend payments from his study of companies on the Karachi Stock Exchange in Pakistan as firms with positive working capital will lower dividends. Myers and Bacon (2004) highlighted that corporations are likely to lessen dividends to spread liquidity. However, a few years later, Al-Najjar and Hussainey (2009) proved that paying lower or higher dividends does not depend on a good or bad liquidity position.

Since there is still a debate about this association, this study will test whether the dividend policy of companies in Vietnam is impacted by liquidity. From that the next hypothesis is proposed:

H4: There is a relationship between the liquidity and the dividend policy of the businesses on the HOSE and HNX.

e. Dividend policy and asset structure

Myers (1984) assumed that companies owning the most tangible assets are likely to borrow more than those owning the most intangible assets, so they have the ability to keep less retained earnings and pay higher dividends according to pecking order theory. Therefore, a positive relationship between the tangible assets ratio and dividend payments is expected. Nevertheless, Aivazian et al.'s (2003a) results showed that an inverse association between tangibility of assets and dividend policy exists in listed firms in some emerging markets. The view of Al-Najjar and Hussainey (2009) was similar in that they believed that the more tangibility the more dependence on retained earnings because of lower financing from debts, so the lesser dividends are paid towards shareholders.

Since there are opposite results from authors applying different arguments, this research will attempt to determine whether there is an influence of asset structure on the dividend payments of Vietnamese shareholding firms. Thus, the following hypothesis is put forward:

H4: A relationship between asset structure and dividends subsists of firms on the HOSE and HNX.

f. Dividend policy and industry type

Baker et al. (1985) proposed that various types of firms have different dividend policies. After that, Baker and Powell (2000) divided U.S. companies listed on the NYSE in 1997 into three industry groups involving utility, that belongs to a regulated industry, manufacturing and wholesale/retail trade, that are less regulated industries. They discovered that utilities reimburse higher dividends than firms in the manufacturing and wholesale/retail trade, because shareholders desire current income rather than future income and managers prefer less risk in regulated industries. In Vietnam, companies listed on the two Stock Exchanges are classified into ten groups consisting of Consumer Goods, Public Services, "Agriculture, Forestry, Fisheries", Raw Materials, "Health and Social Support Activities", Finance, Diversified areas, Industry, Consumer Services and Technology. Therefore, this study will test whether there is a difference among these ten types in paying dividends, so the following hypothesis is set up:

H5: A connection between industry type and dividend policy of companies on the HOSE and HNX is anticipated.

g. Dividend policy and growth opportunities

Myers and Majluf (1984) discovered that increasing the growth opportunities of the corporation raises the ex ante underinvestment that leads to less dividends paid to shareholders. Chang and Rhee (1990) also highlighted that firms having greater opportunities for growth prefer retaining earnings to finance the development than paying dividends, so the higher the growth opportunities, the lower the dividend payments. Nevertheless, some researchers' results show an irrelevant link between these two variables. For example, Naceur et al. (2006) indicated that the market value of equity to book value of equity ratio, that is a proxy of investment opportunities, does not impact on dividend reimbursement in Tunisia. Additionally, Kowalewski et al. (2008) found a statistically insignificant result in the effect of Tobin's q variable that represents investment prospects on dividends in Poland. For this reason, this study will examine whether this correlation subsists in the Vietnamese stock market. The next hypothesis is offered:

H6: There is an association between growth opportunities of a firm and its dividend policy on the HOSE or HNX.

h. Dividend policy and business risk

Al-Najjar and Hussainey (2009) defined business risk as the probability of decrease in returns on investment owing to exceptional circumstances. Under transaction cost theory, Rozeff (1982) suggested that the transaction costs of external financing will be higher when the firm has higher operating and financial leverage or more risks that can be measured through the greater beta coefficient. This is compatible with Holder et al. (1998) who highlighted that riskier firms suffer larger transaction costs. Thus, a lower dividend policy seems to be applied to riskier companies in order to lessen the transaction expenses from outside finance. Additionally, Chang and Rhee (1990) suggested the reason for this negative relationship is that a firm with lower risk or more stability of earnings has more capacity for remaining or paying more dividends in the future. Aivazain et al. (2003), Li and Zhao (2008) agreed with the suggestion of Chang and Rhee's (1990) in that they thought that the lower the business risk the greater the dividends shelled out. Because most authors proposed the contrary impact of risk on dividend policy of a firm, this negative relationship will be tested on joint-stock firms in Vietnam. Therefore, the following hypothesis is suggested:

H7: There is an opposite correlation between business risk and dividend disbursement of enterprises on the HOSE and HNX.

DIVIDEND POLICY AND CORPORATE GOVERNANCE

a. Dividend policy and ownership

Jensen et al (1992) and Short et al. (2002) proved that the payment of dividends is in inverse direction to insider ownership for the reason that it is not necessary to pay high dividends to lessen agency costs at the same time when the management ownership is high. However, according to Farinha (2003), this contrary association is only appropriate before a critical entrenchment level; after that level, the ownership and dividends will compensate each other.

Ownership can be represented not only by the management ownership but also by the ownership concentration of shareholding blocks, as in the study of Khan (2006). Whereas Khan (2006) discovered the higher the concentrated ownership the lower dividend payments, when he tested 330 UK companies from 1985 to 1997; Naceur et al. (2006) found that the concentration of ownership does not affect dividend policy in Tunisia because increasing dividends is not encouraged as agency conflicts of Tunisian corporations are not so high.

Due to mixed results from prior researches relating to the impact of ownership that can be measured by management ownership or ownership concentration on dividend policy, this research will check whether these two aspects of ownership influence dividends in the case of Vietnam. Hence, the two next hypotheses are proposed as follows:

H8: There is a relationship between dividend policy and management ownership of firms on the HOSE and HNX.

H9: An association between dividend payments and ownership concentration exists for businesses on the HOSE and HNX.

b. Dividend policy and board of directors

Dividend payments and board composition are means to limit agency disputes, as mentioned in study of Bathala and Rao (1995). Most researchers measure the board composition by the ratio of outside directors to total directors. In the study of Belden et al. (2005) in the U.S., they found that the more outsiders in the board the more dividends are paid to lower agency costs and the more freedom there is for shareholders in spending their money. On the other hand, Bathala and Rao (1995) as well as Al-Najjar and Hussainey (2009) supported the negative relation between these two factors as they argued that dividend disbursement and independent directors are substitutive mechanisms to reduce interest conflicts between principals and agents. Although Schellenger et al.'s (1989) findings were not consistent with that judgment, they asserted that the board composition does impact on dividend policy.

From the different judgments of authors on the relationship between board composition and dividend policy and the unique characteristics of shareholding companies in Vietnam, the following hypothesis is expected:

H10: Board composition does affect the dividend payments in this country

c. Dividend policy and audit quality

Deshmukh (2003) stated that when other things are constant, the higher the level of asymmetric information that can be shown through low audit quality of financial reports, the lower the dividends paid to stockholders. This is because of underinvestment according to pecking order theory. Results in Deshmukh's (2005) research of American manufacturing companies from 1988 to 1992 also showed agreement with the pecking order theory. He stated that asymmetric information levels will become higher

when the number of analysts for a company is low, so dividend expense is not encouraged to restrain the problem of underinvestment. In addition, Mitton (2004) found that firms that are audited by the Big five accounting firms seem to pay more dividends to shareholders. Furthermore, Allen et al. (2000) proposed that dividend payment is a signal of a firm's quality. The firm that increases dividends to shareholders often wants to prove its high quality.

Because most writers support the positive relationship between audit quality and dividend policy, the last hypothesis suggested in this study is that:

H11: Audit quality affects dividend policy of an enterprise listed on the HOSE or HNX positively.

RESEARCH DESIGN

DATA

On July 06th 2010, there were 251 shareholding companies on HOSE and 308 on HNX¹. This study focuses on researching the determinants of the dividend policy of the listed companies on HOSE and HNX in Vietnam in 2009. Therefore, firms having base date from 2009 onwards or no dividends declaration since they were listed are rejected. After that, the author continues to eliminate shareholding corporations that did not publish sufficient annual reports for 2008 and 2009 or did not provide detailed information about shareholders in their annual reports for 2008 or did not have obvious dividend policies in 2009. The final number of research sample is 116 companies, including 63 firms from HOSE and 53 companies from HNX.

There are twelve variables expected to have a relationship with dividend disbursement in Vietnam and these can be divided into two groups.

- Firm characteristics group contains profitability, firm size, debt level, liquidity, asset structure, industry type, growth opportunities and business risk.
- Corporate governance group involves management ownership, ownership concentration, board of directors and audit quality variables.

These variables together with dividend payment can be defined and measured as follows:

- Dividend payment:

Dividend payment shows the amount of dividends shareholders receive based on the number of shares they keep during a period. Dividend per share is used to measure dividend payment in Vietnam in this study because, as Naceur et al. (2006) argued, the usage of per share data can help to counteract the effects of any variation in the quantity or structure of capital. The information about dividend per share of each listed Vietnamese company is collected from Datastream.

- Profitability

This research uses return of total assets (ROA) to measure profitability. This data is collected from 2009 financial statements of listed firms on HOSE and HNX

- Firm size

This study follows the popular approach of several authors such as Mitton (2004), Bebczuk (2005) and Kowalewski et al. (2006) in applying a logarithm of assets as a proxy of firm size. The total assets are gathered from 2009 financial reports of shareholding companies in Vietnam.

- Debt level

Debt level can be determined by the total debt to total assets ratio. The information about total debt and total assets in 2009 is collected from the balance sheets of businesses on HOSE and HNX.

- Liquidity

This study follows the approach of Myers and Bacon (2004) in using the current ratio, being defined as a proportion between current assets and current liabilities, as a proxy of liquidity. 2009 financial statements of Vietnamese corporations on HOSE and HNX are sources from which to gather information on current assets along with current liabilities.

- Asset structure

Asset structure reflects the level of tangibility of a company. Koch and Shenoy (1999), Al-Najjar and Hussainey (2009) utilized the ratio of fixed assets to total assets to evaluate tangibility. This research also applies this measurement and is based on data collected from the 2009 financial reports of firms listed on the HOSE and HNX.

- Industry type

This paper will filter listed enterprises in which The State holds more than 50 percent of stocks among 116 companies in the sample and consider them as regulated firms, otherwise they are unregulated corporations. A dummy variable (INTdum) of 1 is exploited to represent a regulated firm, or else it is 0. The proportion of shares the State owns in each firm is collected from BIDV Securities Company (BIDV Securities Company, 2010).

- Growth opportunities

This research's approach to future growth is identical to that of Naceur et al. (2006) in choosing the ratio of market value of equity to book value of equity to measure investment opportunities. The information about book values of equity is gathered

¹ Source: <http://www.bsc.com.vn/Industries.aspx>

from balance sheets in 2009 of companies on HOSE and HNX, while market value of equity of each of the listed firms is collected from Datastream.

- Business risk

This study agrees with the approach of Rozeff (1982), Ho (2003) and Al-Najjar and Hussainey (2009) in utilizing Beta to represent risk. The data on each firm on HOSE and HNX can be gathered directly from Vietstock Company (Vietstock Company, 2010).

- Management ownership

Short et al. (2002) defined management ownership as the proportion of equity that directors and their close relations owned at the beginning of the accounting period. This paper relies on Short et al. (2002)'s definition to collect the percentage of equity being owed by directors and their close relations early in the year of 2009 from the annual report of 2008 of listed companies on HOSE and HNX.

- Ownership concentration

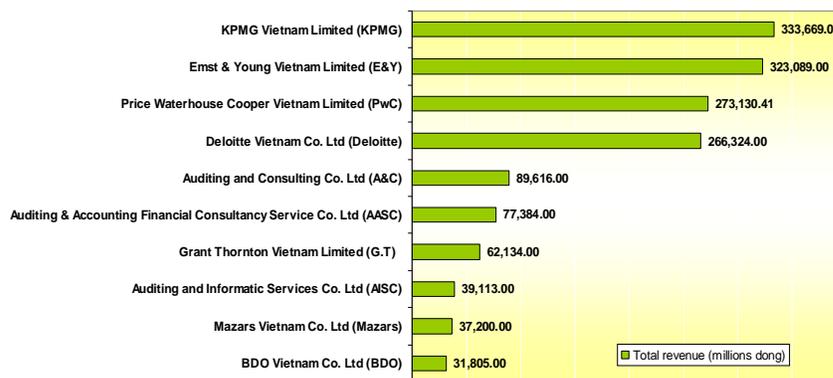
Ownership concentration is defined as the quantity of large shareholders holding greater or equal to 5% of stocks at the start of 2009 that is gathered from 2008 annual reports of listed firms in Vietnam.

- Board composition

The ratio of independent non-executive directors to total directors at the beginning of the year 2009 is applied to represent structure of directors' board in this study. This data is hand gathered from 2008 annual reports of sample companies on the HOSE and HNX.

- Audit quality

Audit size stands for audit quality in this research. The audit size will be coded as 1 if the joint-stock company on the HOSE or HNX was audited by one of the ten biggest audit companies according to the ranking of VACPA, otherwise it will be coded as 0 (figure 1).



METHODOLOGY

In this study, SPSS software is applied to analyze the collected data. There are 12 independent variables being used in this study. Among them, ten variables are scale variables (profitability, firm size, debt level, liquidity, asset structure, growth opportunities, business risk, management ownership, ownership concentration and board composition) and two variables are nominal ones including industry types and audit quality. Therefore, firstly, ten scale variables are tested in relation to dividend per share by Pearson Correlation. Secondly, Multiple Regression will be done to build a suitable model for dividend per share in Vietnam without multicollinearity among influential factors. More specifically, the author will test VIF values and consider preliminary results of Correlation Analysis through t-tests statistics. Because the Stepwise method of Multiple Regression is considered as a method being used most frequently (Foster, 1998), it will be used to build up a general equation:

$$\text{Dividend payment} = a + b_1 \text{ Profitability} + b_2 \text{ Firm size} + b_3 \text{ Debt level} + b_4 \text{ Liquidity} + b_5 \text{ Asset structure} + b_6 \text{ Growth opportunities} + b_7 \text{ Business risk} + b_8 \text{ Management ownership} + b_9 \text{ Ownership concentration} + b_{10} \text{ Board composition} \quad (1.1)$$

- Where:
- Dividend payment is the dependent variable
 - Profitability, firm size, debt level, liquidity, asset structure, growth opportunities, business risk, management ownership, ownership concentration and board composition are independent variables
 - a is the intercept

The anticipated equation can be rewritten after encoding all variables as follows:

$$\text{DPS} = a + b_1 \text{ ROA} + b_2 \text{ LoA} + b_3 \text{ DtA} + b_4 \text{ Cur} + b_5 \text{ TANGtA} + b_6 \text{ MBV} + b_7 \text{ BETA} + b_8 \text{ MOdum} + b_9 \text{ NuLS} + b_{10} \text{ INDtD}$$

Where: DPS is dividend per share and represents dividend payment. ROA is Return on Assets, measures profitability. LoA is Logarithm of assets that stands for firm size. DtA is total debt to total assets ratio showing debt level. Cur is current ratio measuring liquidity. TANGtA is total tangible assets to total assets ratio, represents asset structure. MBV is the ratio of market value of equity to book value of equity denoting growth opportunities. BETA is Beta coefficient standing for business risk. MODum is the proportion of equity being owned by directors and their close relations showing level of management ownership. NuLS is number of large shareholders holding 5% of stocks and over, embodies ownership concentration. INDtD is the ratio of independent non-executive directors to total directors showing the board composition.

After determining the independent scale variables that affect the dividend policy of Vietnamese firms in the sample, nominal variables, consisting of industry type (INTdum) and audit quality (AuSdum), continue to be considered in the chosen model of dividend per share. Pearson Correlation Analysis and t-tests statistics in Multiple Regression are applied again to test hypotheses related to industry type and audit quality.

EMPIRICAL RESULTS

The relationship between ten independent scale variables (profitability, firm size, debt level, liquidity, asset structure, growth opportunities, business risk, management ownership, ownership concentration and board composition) and dividend per share

Table 1: Correlation between 10 independent scale variables and Dividend per share

Correlations			
	Pearson Correlation	Sig. (1- tailed)	N
	DPS	DPS	DPS
DPS	1.000	.	116
ROA	.523**	.000	116
LoA	-.141	.065	116
DtA	-.199*	.016	116
Cur	.148	.056	116
TANGtA	.004	.484	116
MBV	.202*	.015	116
BETA	-.223**	.008	116
OM	-.099	.146	116
NuLS	-.001	.495	116
INDtD	.024	.400	116

** . Correlation is significant at the 0.01 level (1-tailed).

* . Correlation is significant at the 0.05 level (1-tailed).

Notes:

DPS is dividend per share.
ROA is return on assets.
LoA is logarithm of assets.
DtA is total debt to total assets ratio.
Cur is current ratio.
TANGtA is total tangible assets to total assets ratio.
MBV is the ratio of market value of equity to book value of equity.
BETA is Beta coefficient.
MO is the proportion of equity being owned by directors and their close relations.
NuLS is number of large shareholders holding 5% of stocks and over.
INDtD is the ratio of independent non-executive directors to total directors in both BOD and EC.

It can be seen from the table 1 that four factors involving profitability (ROA), debt level (DtA), growth opportunities (MBV) and business risk (BETA) correlate with dividend per share with significant levels less than 0.05 (1-tailed). Among them, there is a positive strong relationship between ROA and DPS. Growth opportunities also correlate with dividend payments positively but at a lower level. On the other hand, there are negative associations between business risk as well as debt level and dividend payments.

SPSS Output 1.1: Regression model Summary

Variables Entered/Removed ^a			
Model	Variables Entered	Variables Removed	Method
1	ROA		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	BETA		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: DPS

Model Summary ^c										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	Df1	df2	Sig. F Change	
1	.523 ^a	.274	.267	646.389576	.274	42.946	1	114	.000	
2	.556 ^b	.309	.297	633.104533	.036	5.835	1	113	.017	1.666

- a. Predictors: (Constant), ROA
b. Predictors: (Constant), ROA, BETA
c. Dependent Variable: DPS

Excluded Variables ^o								
Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics			
					Tolerance	VIF	Minimum Tolerance	
1	LoA	-.105 ^a	-1.322	.189	-.123	.995	1.005	.995
	DtA	.148 ^a	1.532	.128	.143	.673	1.486	.673
	Cur	-.053 ^a	-.614	.541	-.058	.863	1.159	.863
	TANGtA	-.039 ^a	-.491	.625	-.046	.993	1.007	.993
	MBV	.066 ^a	.797	.427	.075	.927	1.078	.927
	BETA	-.189^a	-2.415	.017	-.222	.996	1.004	.996
	MO	-.053 ^a	-.658	.512	-.062	.992	1.008	.992
	NuLS	.067 ^a	.829	.409	.078	.984	1.017	.984
	INDtD	.024 ^a	.293	.770	.028	1.000	1.000	1.000
2	LoA	-.062 ^b	-.767	.444	-.072	.934	1.071	.934
	DtA	.187 ^b	1.965	.052	.183	.658	1.520	.658
	Cur	-.069 ^b	-.812	.419	-.076	.858	1.166	.858
	TANGtA	-.049 ^b	-.620	.536	-.059	.991	1.009	.990
	MBV	.066 ^b	.815	.417	.077	.927	1.078	.924
	MO	-.064 ^b	-.808	.421	-.076	.989	1.011	.987
	NuLS	.023 ^b	.280	.780	.026	.928	1.078	.928
	INDtD	.028 ^b	.355	.723	.034	.999	1.001	.995

- a. Predictors in the Model: (Constant), ROA
b. Predictors in the Model: (Constant), ROA, BETA
c. Dependent Variable: DPS

Pearson correlation, only two main variables (ROA and BETA) are put into regression models (SPSS Output 1.1). The t-tests of remaining variables in both models are not at a significant level ($p > 0.05$). This indicates that there is no relationship between firm size (LoA), debt level (DtA), liquidity (Cur), asset structure (TANGtA), growth opportunities (MBV), management ownership (MO), ownership concentration (NuLS) as well as board composition (INDtD) and dividend payments (DPS) of Vietnamese companies in the sample. Thus, Hypotheses H2, H3, H4, H5, H7, H9, H10 and H11 are rejected.

In model 1, the value of R Square is 0.274 implying that profitability makes up 27.4 percent of the variation in dividend per share. Since this value increases to 30.9 percent in model 2, it indicates that business risk just accounts for an additional 3.5² percent of the change in dividend per share. This estimation together with correlation coefficients on ROA (0.523) and BETA (-0.223) from the Pearson Analysis imply that there is a positive strong association between dividends and profitability whereas a negative weak relationship between dividend per share and business risk exists in the sample. Therefore, this study accepts H1 and H8.

SPSS output 1.2: ANOVA analysis

ANOVA ^c						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.794E7	1	1.794E7	42.946	.000 ^a
	Residual	4.763E7	114	417819.483		
	Total	6.558E7	115			
2	Regression	2.028E7	2	1.014E7	25.301	.000 ^b
	Residual	4.529E7	113	400821.349		
	Total	6.558E7	115			

- a. Predictors: (Constant), ROA
b. Predictors: (Constant), ROA, BETA
c. Dependent Variable: DPS

Through ANOVA analysis (SPSS output 1.2), model 1 seems to be better at forecasting dividend per share than model 2 because the F-ratio for the first model is much higher than that for the second model (42.946 in comparison with 25.301, which are at highly significant levels at less than 0.001). Therefore, model 1 is preferred to model 2 in this study, and it can be suggested that profitability is the best variable to predict dividend payments of the listed companies on HOSE and HNX.

The equation (1.1) can be rewritten as the equation (1.2) as follows:

$$\begin{aligned} \text{Dividend per share} &= a + b \text{ Profitability} \\ \text{DPS} &= a + b \text{ ROA} \end{aligned} \quad (1.2)$$

² 3.5% = 30.9% - 27.4%

The relationship between two independent nominal variables (industry types and audit quality) and dividend per share

When considering nominal variables like industry types (INTdum) and audit quality (AuSdum), these dummy variables are added into the equation (1.2).

$$DPS = a + b_1 ROA + b_2 INTdum + b_3 (ROA \times INTdum) + b_4 AuSdum + b_5 (ROA \times AuSdum) \quad (1.3)$$

Where: DPS is Dividend per share. ROA is Return on Assets. INTdum is dummy variable of industry type. AuSdum is dummy variable of audit size.

At that time, correlation between profitability, industry type or audit size and dividend per share is demonstrated in Table 2.

Table 2: Correlation between profitability, industry type or audit size and dividend per share

Correlations			
	Pearson Correlation	Sig. (1-tailed)	N
	DPS	DPS	DPS
DPS	1.000	.	116
ROA	.523**	.000	116
INTdum	.053	.286	116
ROA x INTdum	.374**	.000	116
AuSdum	-.013	.444	116
ROA x AuSdum	.306**	.000	116

Notes:
DPS is dividend per share.
ROA is return on assets.
INTdum is dummy variable of industry type.
AuSdum is dummy variable of audit size.

** . Correlation is significant at the 0.01 level (1-tailed).

Predictive coefficients on (ROA x INTdum) and (ROA x AuSdum) are positive and significant at the 0.01 level. This proves that listed companies belonging among regulated companies tend to pay more dividends than unregulated ones and firms that are audited by one of the ten biggest audit corporations disburse higher dividends to shareholders than those not being assessed by one of the ten biggest audit corporations in Vietnam. Therefore, *H6 together with H12 are accepted in this research.*

A suitable equation for dividend per share to shareholding firms in Vietnam

Coefficients of dividend per share model based on results of the sample are presented in SPSS Output 1.3

SPSS Output 1.3: Coefficients of dividend per share model

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	954.112	93.678		10.185	.000	768.538	1139.687
	ROA	4824.007	736.115	.523	6.553	.000	3365.769	6282.244

a. Dependent Variable: DPS

Coefficients ^a						
Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	ROA	.523	.523	.523	1.000	1.000

a. Dependent Variable: DPS

From B values in SPSS Output 1.3, the equation (1.3) becomes the equation (1.4)

$$DPS = 954.112 + 4824.007 ROA \quad (1.4)$$

The b₁ value of 4824.007 indicates that when return on assets increases by one percent, dividend per share rises by 48.240 VND.

To sum up, among 12 tested variables, there are four variables affecting dividend policy of firms listed on the HOSE and HNX in the sample. They are profitability, business risk, industry type along with audit quality; and profitability is suggested to be the most important predictors to anticipate dividend payments.

The comparison between empirical evidence and results concerning the determinants of dividend policy in Vietnam in this study is summarized in table 3.

Table 3: Comparison between empirical evidence and results in the study

Variable	Previous empirical evidence from other authors	Result from this paper
Profitability	Positive	Positive
Firm size	Positive/Negative	No relation
Debt ratio	Positive/Negative/No relation	No relation
Liquidity	Positive/Negative/No relation	No relation
Asset structure	Positive/Negative	No relation
Industry type	Have relation	Have relation
Growth opportunities	Negative/No relation	No relation
Business risk	Negative	Negative
Management ownership	Negative	No relation
Ownership concentration	Positive/Negative/No relation	No relation
Board of directors	Positive/Negative	No relation
Audit quality	Positive	Positive

CONCLUSION

This research uses Multiple Regression model in SPSS software to examine the determinants of dividend policy in Vietnam based on a sample of 116 companies listed on the HOSE and HNX in the year of 2009. It contributes to current Vietnamese literature by testing factors not only belonging to firms' characteristics (profitability, firm size, debt level, liquidity, asset structure, industry types, growth opportunities and business risk) but also related to corporate governance that involves management ownership, ownership concentration, board composition and audit quality; among them, industry types and audit quality are two dummy variables.

The results show that while profitability affects dividend payments positively, there is a negative relationship between business risk and dividend disbursement to companies in the sample in Vietnam. These results are consistent with previous empirical studies in the US (Li and Zhao, 2008), the UK (Al-Najjar and Hussainey, 2009), Argentina (Bebczuk, 2005), Tunisia (Naceur et al., 2006) and Poland (Kowalewski et al., 2008). An association between dividend payments and industry type or audit quality is also found in this study that is similar to researches of Baker and Powell (2000), Belden et al. (2005) and Naceur et al. (2006) to the former and to studies of Deshmukh (2003, 2005), Mitton (2004) to the latter. Specifically, regulated enterprises pay more dividends than unregulated ones and dividends among listed firms being audited by one of the ten biggest audit companies, according to the ranking of VACPA, are reimbursed to stock holders at higher rates than in remaining companies. The most important point is that among tested factors to the sample, profitability is the main determinant of dividend policy in Vietnam. Therefore, investors who concern about business environment in Vietnam can base their expectations on the profitability of a firm in the future to consider whether they should buy, hold or sell its shares. The more profitability a firm can achieve, the more dividends securities holders are able to receive.

There are two further analyses being suggested to this paper. Firstly, In order to increase the generality of the experiment, a time chain should be done; for example, listed firms on the HOSE would be tested in a period from 2001 to the present time and those on the HNX would be checked from 2006. Secondly, questionnaires as well as interviews to directors of companies listed on the HOSE and HNX about factors driving dividend policy of their firms would be a more useful method for future research.

REFERENCES

- Aivazian, V., Booth, I. and Cleary, S. (2003a). Do emerging market firms follow different dividend policies from US firms?. *Journal of Financial Research*, Vol. 26 No. 3, pp. 371-87.
- Allen, F., Antonio, B. and Ivo, W. (2000). A theory of dividends based on tax clientele. *Journal of Finance*, Vol. 55 No. 6, pp. 2499- 2536.
- Al-Najjar, B. and Hussainey, K. (2009). The association between dividend payout and outside directorships. *Journal of Applied Accounting Research*, Vol. 10 No. 1, pp. 4 – 19.
- Baker, H.K., Farrelly G.E. and Edelman R.B. (1985). A Survey of Management Views on Dividend Policy. *Financial Management*, Vol. 14 No. 3, pp. 78-84.
- Baker, H.K. and Powell G.E. (2000). Determinants of corporate dividend policy: a survey of NYSE firms. *Financial practice and education*, Vol.10, pp. 29-40.
- Bathala, C.T. and Rao, R.P. (1995). The Determinants of Board Composition: An Agency Theory Perspective. *Managerial and Decision Economics*, Vol. 16 No. 1, pp. 59-69.
- Bebczuk, R.N. (2005). Corporate Governance and Ownership: Measurement and Impact on Corporate Performance and Dividend Policies in Argentina. *Center for Financial Stability*, Working Paper.
- Belden, S., Fister, T. and Knapp, B. (2005). Dividends and Directors: Do Outsiders Reduce Agency Costs?. *Business and Society Review*, Vol. 110 No. 2, pp. 171-180.
- Chang, R.P. and Rhee, S.G. (1990). The impact of personal taxes on corporate dividend policy and capital structure decisions. *Financial management*, Vol. 19 No. 2, pp. 21- 31.
- Deshmukh, S. (2003). Dividend initiation and asymmetric information: a hazard model. *The Financial Review*, Vol. 38 No. 3, pp. 351-368.

- Deshmukh, S. (2005). The Effect of Asymmetric Information on Dividend Policy. *Quarterly Journal of Business and Economics*. Vol. 44 No. 1, pp. 107-127.
- Farinha, J. (2003). Dividend Policy, Corporate Governance and the Managerial Entrenchment Hypothesis: An Empirical Analysis. *Journal of Business Finance and Accounting*, Vol. 30 No. 9-10, pp. 1173-1209.
- Fama, E.F. and French, K.R. (2002). Testing Trade-Off and Pecking Order Predictions about Dividends and Debt. *The Review of Financial Studies*, Vol. 15 No.1, pp. 1-33.
- Ho, H. (2003). Dividend Policies in Australia and Japan. *International Advances in Economic Research*, Vol. 9 No. 2, pp. 91-100.
- Jensen, G.R., Solberg D.P. and Zorn T.S. (1992). Simultaneous Determination of Insider Ownership, Debt and Dividend Policies. *Journal of Financial and Quantitative Analysis*, Vol. 27, pp. 247-263.
- Khan, T. (2006). Company dividends and ownership structure: Evidence from UK panel data. *The Economic Journal*, Vol. 116 No. 510, pp. C172-C189.
- Koch, P.D. and Shenoy, C. (1999). The information content of dividend and capital structure policies. *Financial Management*, Vol. 28 No. 4, pp. 16-35.
- Kowalewski, O., Stetsyuk, I. and Talavera, O. (2008). Does Corporate governance determine dividend payouts in Poland?. *Post-Communist Economies*, Vol. 20 No. 2, pp. 203-218.
- Li, K. and Zhao, X. (2008). Asymmetric Information and Dividend Policy. *Financial Management*, Vol. 37 No. 4, pp. 673-694.
- Lintner, J. (1956). Distribution of Incomes of Corporations Among Dividends, Retained Earnings and Taxes. *American Economics Review*, Vol. 46 No. 2, pp. 97-113.
- Mitton, T. (2004). Corporate governance and dividend policy in emerging markets. *Emerging Markets Review*, Vol. 5 No. 4, pp. 409-426.
- Myers, M. and Bacon, F. (2004). The determinants of corporate dividend policy. *Academy of Accounting and Financial Studies Journal*. Vol. 8 No. 3, pp. 17-28.
- Myers, S.C. (1984). The capital structure puzzle. *Journal of Finance*. Vol. 39 No. 3, pp. 575-592.
- Myers, S.C. and Majluf, N. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, Vol. 13, pp. 187- 221.
- Naceur, S.B., Goiaed, M. and Belanes, A. (2006). On the Determinants and Dynamics of Dividend Policy. *International Review of Finance*, Vol. 6 No. 1-2, pp. 1-23.
- Rozeff, M. (1982). Growth, Beta and Agency Costs as Determinants of Dividend Payout Ratios. *Journal of Financial Research*, Vol. 5 No. 3, pp. 249-259.
- Schellenger, M.H., Wood, D.D. and Tashakori, A. (1989). Board of Director Composition, Shareholder Wealth, and Dividend Policy. *Journal of Management*, Vol. 15 No. 3, pp. 457- 467.
- Short, H., Zhang, H. and Keasey, K. (2002). The link between dividend policy and institutional ownership. *Journal of corporate finance*, Vol. 8 No. 2, pp. 105-122.
- Jiraporn, P. (2004). Dividend policy, shareholder rights and corporate governance provisions. *Working Paper*, Texas AandM International University.
- Mehar, A. (2002). Corporate governance and dividend policy”, *MPRA Paper No. 619*, viewed 01 July 2010, http://mpra.ub.uni-muenchen.de/619/1/MPRA_paper_619.pdf
- Atrill, P. and McLaney, E. (2002). *Financial Accounting for Non-specialists*. Prentice Hall, pp. 46, 202-205, 210-212.
- Foster, J.J. (1998). *Data Analysis Using SPSS for Windows – A Beginner’s Guide*, SAGE Publications, pp. 188.
- BIDV Securities Company (2010). *Shareholder structure*. viewed for each listed firm in July 2010, <http://www.bsc.com.vn>.
- Enterprise Law (No.60/2005/QH11) of The National assembly of The Socialist Republic of Vietnam, viewed 28 June 2010, <http://sites.google.com/site/exportvietnam/law-the-enterprise-law-2005>.
- Hanoi Stock Exchange n.d., *HANOI STOCK EXCHANGE: Transparency – Equitableness – Efficiency*, viewed 17 July 2010, http://en.hnx.vn/lichsuphattrien.asp?actType=1andmenuup=201000andTypeGrp=1andmenuid=201110andmenulink=200000andmenupage=Quydingh_CocheGD01.aspandstocktype=2.
- HoChiMinh Stock Exchange n.d., *HoChiMinh Stock Exchange Establishment and Development*, viewed 17 July 2010, http://www.hsx.vn/hsx_en/Modules/Gioithieu/Lichsu.aspx.
- The Vietnam Association of Certified Public Accountants (VACPA) n.d, *10 BIGGEST AUDIT FIRMS IN VIETNAM*, viewed 7 July 2010, http://vacpa.org.vn/index.php?o=modulesandn=newsandf=news_detailandidnews=1824andidtype=111
- Vietstock (2010), *VietstockFinance*, viewed for each listed firms on July 2010, <http://finance.vietstock.vn/Default.aspx>.